

AMENDMENTS TO THE SPECIFICATION

In the application, please replace the “Brief Summary of the Invention” section (section reference is to section header created with Examiner’s Amendment of May 5, 2008) with the following replacement section:

Brief Summary of the Invention

The object of this invention is therefore to provide a device for the optical display of information on the actual operating state of a liquid system and/or for setting at least one parameter for a set operating state of the liquid system, which prevents the above disadvantages while at the same time being of particularly simple design, compact and stable, and also enabling a simple, precise and reliable reading of the actual operating state of a liquid system and an individual adjustment of at least one parameter for a set operating state of the liquid system, as well as its application.

This object is achieved in a surprisingly simple manner by a technical device with the features of original claim 1.

Due to the design of the device in accordance with the invention, comprising a housing arranged in the area of the operation of the liquid system, a display unit mounted in the housing for visual display of information in electronic form, an actuating device for setting at least one parameter and a, particularly electronic, control unit for processing and/or conditioning the data and/or signals reflecting the actual or set operating state, a particularly simple device that is also itself of compact construction is achieved. Furthermore, this device in accordance with the invention enables the actual operating state of the liquid system to be easily, precisely and very reliably read. Finally, in this manner the setting of at least one parameter for a set operating state of the liquid system is ensured, and this can be carried out in the area or location of the operation of the liquid system.

Further advantageous details of the device in accordance with the invention are described in original claims 2 to 24.

Of particularly great significance for a simple reading and also ease of handling of the device in accordance with the invention is the housing in accordance with original claim 2 mounted in the outer area of the liquid system.

In this case, the housing in accordance with the features of original claim 3 can preferably be mounted on a wall, or similar, enclosing the liquid system, particularly in a recess in the wall.

In this connection, it has been shown to be distinctly advantageous if the housing can be mounted on the wall or in a recess in the wall, flush or at least partly recessed, so that it projects only slightly relative to the area spanned by the wall. In this way, the device is protected against the effects of weather and presents no resistance if the device is used in a moving liquid system.

Preferably, the housing in accordance with original claim 5 is secured to the wall or in a recess in the wall using captive screws.

Furthermore, the invention includes that the housing corresponding to the features of original claim 6 can be formed in two sections with essentially one flat lower section and one partly cover-shaped upper section being provided, that are secured to each other by screws.

Appropriately, the screws for securing the essentially flat lower section and partly cover-shaped upper section are in this connection, in accordance with original claim 7, not accessible from the outside of the housing. This ensures that the lower section and upper section of the housing cannot be lifted from each other and parted without the complete housing being detached from the wall or the recess in the wall. Manipulation by operating personnel is thus prevented.

Furthermore, the invention provides that the housing corresponding to the features of original claim 8 be encapsulated, particularly temperature insulated.

Of particular interest for many possible applications of the device in accordance with the invention are the measures of original claim 9. According to these, a heater for heating the inner space around the housing and/or a cooling device for cooling the internal space surrounded by the housing and for maintaining a constant temperature level therein is allocated to the housing. By the intentional raising or lowering of the temperature and subsequent maintenance of the achieved temperature level in the housing, a (continuous) operation of the device overall is guaranteed, even in the event of the device in accordance with the invention being subjected to very low or very high outside temperatures and therefore not least great temperature fluctuations.

Of particular advantage for a particularly versatile possible use and application of the device in accordance with the invention are also the measures of original claim 10, that the display unit is of electroluminescence or similar design, particularly a 1/4" VGA display that has 320 x 240 pixels, or is a similar display. In this way, it is possible to display a number of fonts, letters, numbers, icons, graphic elements or other pictures, with a limited differentiation, by

means of the display unit, and at the same time also possible to substantially improve the display of information with regard to accuracy and weighting. This finally also makes the performance of operating procedures by operating personnel in the area or location of the liquid system substantially more simple, with the result that operating inaccuracies or even operating errors can be largely avoided.

In this connection, the features of original claims 12 to 17 serve to provide a distinctly simple, complete and extraordinarily accurate supply of necessary information to operating personnel. In this context, the facility of enabling the information to be displayed to be weighted is of very substantial significance. Operating personnel can thus also be provided with additional information, such as the consequences of non-compliance with appropriate instructions etc.

In particular, it is provided in accordance with the invention that the actuating device in accordance with original claim 18 has at least one control element for selecting at least one parameter. The at least one parameter can in this case be selected by the control element using what's known as "pin programming" or similar and then activated by double clicking etc.

In a further simplification of the operation of the device in accordance with the invention, the actuating device has, in accordance with original claim 19, at least two other control elements acting in an opposite direction to each other for setting the at least one, already selected, parameter. One of the two control elements in this case is provided with a "plus" presetting or preselection and the other control element is designed to operate in the opposite direction by means of a "minus" presetting or preselection.

In a preferred manner, the control unit is arranged in the housing accordance with the features of original claim 20. As an alternative, it is also conceivable that the control unit be fitted in a different housing separate from this. Whether the control unit is integrated into the housing device completely or is fitted in a housing separate from it depends essentially on the particular space conditions in which the device in accordance with the invention is to be fitted in the outside area of the liquid system.

In accordance with original claim 21, it is advantageously provided that the control is designed in such a way that it interacts with the display unit, the actuating device, the heater and the liquid system. In this way, a design that is compact and therefore small to build is achieved overall.

Of quite special significance for a simple construction of the complete device that is also compact and reliable are the measures of original claims 22 and 23. According to these, the control unit directly includes the heater allocated to the housing and/or the control unit also contains a further internal heater that is directly allocated to the components of the control unit.

Furthermore, the scope of the invention also provides that the control unit in accordance with original claim 24 communicates with the liquid system by means of a data bus and, preferably, by means of a Controller Area Network (CAN) bus or a RS485 bus.

Finally, the invention also includes that the device in accordance with original claims 25 to 27 is used in a stationary liquid system of a building, a building structure or similar or in a mobile liquid system of a land vehicle and/or aircraft and/or watercraft. The use of the device in accordance with the invention in a liquid system of an aircraft has been shown to be particularly advantageous, with the device being in particular mounted on the underside of the fuselage. Finally, the device in accordance with the invention is advantageously suitable for the visual display and setting of the actual and set operating states of a drinking and/or service water system, fuel system, particularly kerosene systems, sterilizing system, drainage systems and wastewater systems.